

ABSTRACT OF THE DISCLOSURE

A metallic joist is provided comprising cold-formed top and bottom chords, and cold-formed metallic truss web members arranged in a vertical and diagonal fashion shop welded to the chords. End connections, or "seats" are each shop welded to the top chord and to one
5 of the webs. Each seat comprises a pair of vertical metallic planes that act as shear plates, welded to and extending outwardly and upwardly of the end portion of the top chord of the joist, and portions extending horizontally either side of the chord and punched with holes for easy field bolting to beams or other supporting elements. Each of the chords comprises a planar base and a pair of legs. Each leg comprises a chamfered portion extending downward
10 and outward from one edge of the base at an acute angle to the horizontal; e.g., about 45 degrees, for stiffening the longitudinal edges of the base, to accommodate axial and moment forces. An upper vertical portion, perpendicular to the base, extends downward from a lower end of the chamfered portion to provide a planar width of material to accommodate axial and moment forces. An inwardly recessed portion parallel to the base extends towards the chord's
15 center line from a lower end of the upper vertical portion; and an attachment portion, perpendicular to the base, extends downward from an inner end of the inwardly recessed portion. The inventive chord imparts the joist of the present invention with enough strength and stiffness to span up to 100-foot lengths.